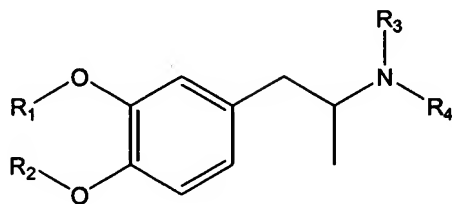


Claim Amendments

1. (previously presented) A compound of the formula:



Formula I

wherein: R¹ is H, lower alkyl or a protecting group,
R² is -(CH₂)_nC(O)R⁶,
R³ and R⁴ are independently H or lower alkyl or a protecting group,
R⁶ is immunogenic carrier or label, and
n is an integer from 1 to 5,
and including acid salts thereof.

2. (original) A compound according to Claim 1 wherein said immunogenic carrier is a poly(amino acid).

3. (original) A compound according to Claim 2 wherein said poly(amino acid) is a protein.

4. (original) Antibodies raised against the compound of Claim 3.

5. (original) A compound according to Claim 1 wherein n is 1.

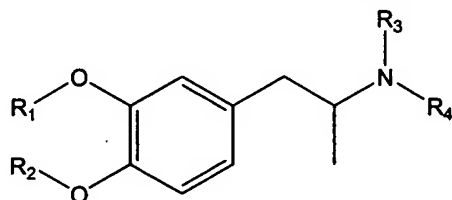
6. (previously presented) A compound according to Claim 1 wherein said label is an enzyme label, a luminescent label, or a radioisotope label.

Claims 7-12 (canceled).

13. (previously presented) A method for determining a compound selected from the group

consisting of 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxy-methamphetamine (MDMA), 3,4-methylenedioxyethylamphetamine (MDEA) and 4-hydroxy-3-methoxy-methamphetamine (HMMA), said method comprising:

- (a) providing in combination in a medium:
 - (i) a sample suspected of containing said compound and
 - (ii) an antibody raised against a compound of the formula:

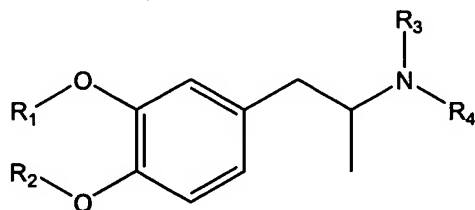


wherein: R^1 is H or lower alkyl,
 R^2 is $-(CH_2)_nC(O)R^6$,
 R^3 and R^4 are independently H or lower alkyl,
 R^6 is an immunogenic carrier, and
 n is an integer from 1 to 5, and

- (b) examining said medium for the presence a complex comprising said compound and said antibody, the presence thereof indicating the presence of said compound in said sample.

14. (original) A method according to Claim 13 wherein said combination further comprises:

- (iii) a label conjugate of the formula:



wherein: R^1 is H, lower alkyl or is taken together with R^2 to form a ring,
 R^2 is H, lower alkyl, $-(CH_2)_nC(O)R^6$ or $-(CH_2)_nR^6$, or is taken together with R^1 to form a ring,
 R^3 and R^4 are independently H or lower alkyl, or, when R^1 is taken together with R^2 to form a ring, at least one of R^3 or R^4 is $-(CH_2)_nC(O)R^5$ or $-(CH_2)_nR^5$, or when R^1 is not

taken together with R^2 to form a ring, at least one of R^1 and R^2 is not H or lower alkyl,

R^5 is a label,

R^6 is a label, and

n is an integer from 1 to 5, and

said examining comprises measuring signal from said label, the amount thereof being related to the presence of said compound in said sample.

15. (original) A method according to Claim 14 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

16. (original) A method according to Claim 14 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium.

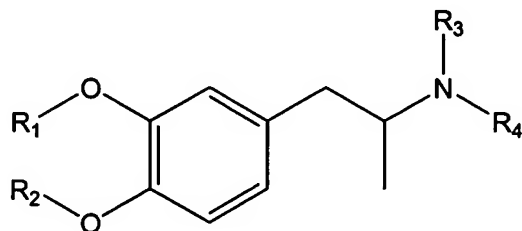
17. (original) A method according to Claim 14 wherein said protein is selected from the group consisting of KLH, BSA, BGG and ovalbumin.

18. (original) A method according to Claim 14 wherein n is 1.

19. (previously presented) A method according to Claim 15 wherein said label is an enzyme label, a luminescent label, or a radioisotope label.

20. (previously presented) A kit for determining a compound selected from the group consisting of 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxy-methamphetamine (MDMA), 3,4-methylenedioxyethylamphetamine (MDEA) and 4-hydroxy-3-methoxymethamphetamine (HMMA), said kit comprising:

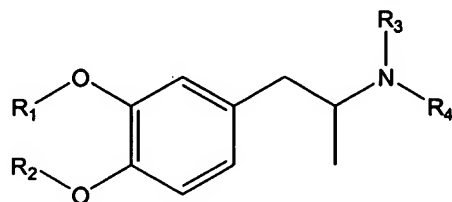
(a) an antibody raised against a compound of the formula:



- wherein: R^1 is H or lower alkyl,
 R^2 is $-(CH_2)_nC(O)R^6$,
 R^3 and R^4 are independently H or lower alkyl,
 R^6 is an immunogenic carrier, and
 n is an integer from 1 to 5, and
(b) ancillary reagents for determining said compound.

21. (previously presented) A kit for determining a compound selected from the group consisting of 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxy-methamphetamine (MDMA), 3,4-methylenedioxyethylamphetamine (MDEA) and 4-hydroxy-3-methoxymethamphetamine (HMMA), said kit comprising:

- (a) an antibody for said compound,
(b) a label conjugate of the formula:



- wherein: R^1 is H or lower alkyl,
 R^2 is $-(CH_2)_nC(O)R^6$,
 R^3 and R^4 are independently H or lower alkyl,
 R^6 is a label, and
 n is an integer from 1 to 5,
(c) ancillary reagents for determining said compound.

22. (original) A kit according to Claim 20 wherein said protein is selected from the group consisting of KLH, BSA, BGG and ovalbumin.

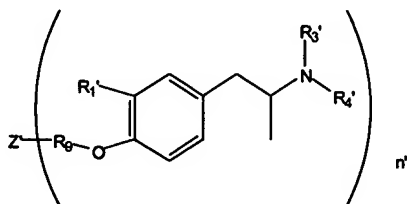
23. (original) A kit according to Claim 20 wherein n is 1.

24. (previously presented) A kit according to Claim 21 wherein said label is an enzyme

label, a luminescent label, or a radioisotope label.

25. (currently amended) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxyethamphetamine and/or methylenedioxyethamphetamine, said method comprising:

- (a) providing in combination in a medium:
 - (i) said sample,
 - (ii) an antibody for methylenedioxyamphetamine, and/or
 - (iii) an antibody for methylenedioxyethamphetamine, and/or
 - (iv) an antibody for methylenedioxyethamphetamine, and
 - (v) a compound of the formula:



wherein:

$R^{1'}$ is H, or methyl or ethyl

$R^{3'}$ is H,

$R^{4'}$ is H, or methyl or ethyl,

R^9 is ~~$R^{9'}$~~ is $-(CH_2)_nC(O)R^{6'}$,

~~$R^{6'}$ is Z'~~ , which is an enzyme,

n is an integer from 1 to 5,

n' is an integer between 1 and the molecular weight of said enzyme divided by about 500;

and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxyethamphetamine and/or

methylenedioxyethamphetamine in said sample.

Claim 26 (canceled).

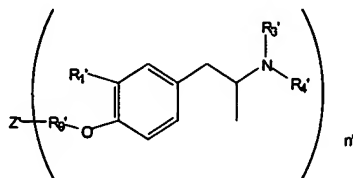
27. (currently amended) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine, said method comprising:

(a) providing in combination in a medium:

(i) said sample,

(ii) a conjugate of an enzyme and a methylenedioxyamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog and/or a conjugate of an enzyme and a methylenedioxyethamphetamine analog,

(iii) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

$\text{R}^{1'}$ is H, or methyl or ethyl

$\text{R}^{3'}$ is H,

$\text{R}^{4'}$ is H,

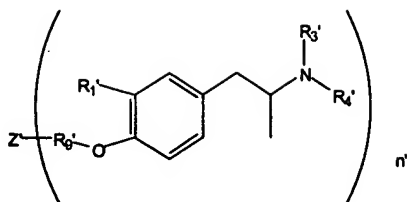
$\text{R}^{9'}$ is $-(\text{CH}_2)_n\text{C}(\text{O})\text{R}^{6'}$,

$\text{R}^{6'}$ is Z' , which is a protein immunogenic carrier or a non-poly(amino acid) immunogenic carrier,

n is an integer from 1 to 5,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier or said non-poly(amino acid) immunogenic carrier divided by about 500; and/or

(iv) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H, or methyl or ethyl

$R^{3'}$ is H,

$R^{4'}$ is methyl,

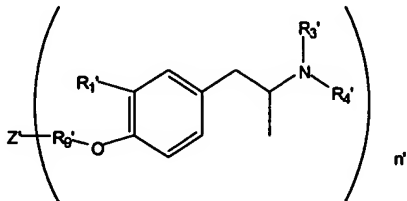
$R^{9'}$ is $-(CH_2)_nC(O)R^{6'}$,

$R^{6'}$ is Z' , which is a protein immunogenic carrier or a non-poly(amino acid) immunogenic carrier,

n is an integer from 1 to 5,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier or said non-poly(amino acid) immunogenic carrier divided by about 500; and/or

(v) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H, or methyl or ethyl

$R^{3'}$ is H,

$R^{4'}$ is ethyl,

$R^{9'}$ is $-(CH_2)_nC(O)R^{6'}$,

$R^{6'}$ is Z' , which is a protein immunogenic carrier or a non-poly(amino acid) immunogenic carrier,

n is an integer from 1 to 5,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier or said non-poly(amino acid) immunogenic carrier divided by about 500; and

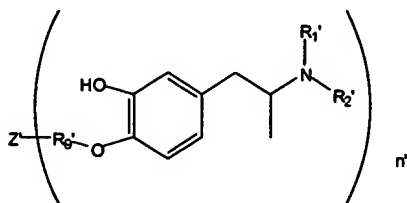
(b) examining said medium for the presence of a complex comprising said

methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

Claims 28-29 (canceled).

30. (currently amended) A kit comprising in packaged combination:

- (i) an antibody for methylenedioxyamphetamine,
- (ii) an antibody for methylenedioxymethamphetamine, and/or
- (iii) an antibody for methylenedioxyethamphetamine, and
- (iv) a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is H, or methyl or ethyl,

$R^{9'}$ is $-(CH_2)_nC(O)R^{5'}$,

$R^{5'}$ is Z' , ~~which is an enzyme a protein immunogenic carrier or a non poly(amino acid) immunogenic carrier,~~

n is an integer from 1 to 5,

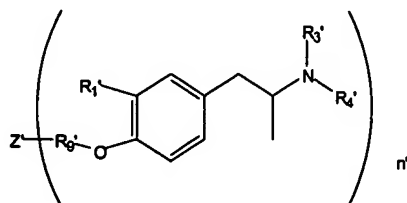
n' is an integer between 1 and the molecular weight of said enzyme ~~protein immunogenic carrier or said non poly(amino acid) immunogenic carrier~~ divided by about 500.

31. (currently amended) A kit comprising in packaged combination:

- (i) a conjugate of an enzyme and a methylenedioxyamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog, and/or a

conjugate of an enzyme and a methylenedioxyethamphetamine analog, and

(ii) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H, or methyl or ethyl

$R^{3'}$ is H,

$R^{4'}$ is H,

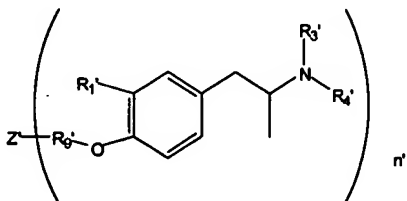
$R^{9'}$ is $-(CH_2)_nC(O)R^{6'}$,

$R^{6'}$ is Z' , which is a protein immunogenic carrier or a non-poly(amino acid) immunogenic carrier,

n is an integer from 1 to 5,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier or said non-poly(amino acid) immunogenic carrier divided by about 500; and/or

(iii) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H, or methyl or ethyl

$R^{3'}$ is H,

$R^{4'}$ is methyl,

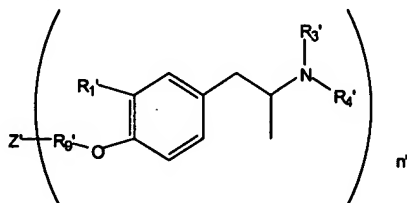
$R^{9'}$ is $-(CH_2)_nC(O)R^{6'}$,

$R^{6'}$ is Z' , which is a protein immunogenic carrier or a non-poly(amino acid) immunogenic carrier,

n is an integer from 1 to 5,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier or said non-poly(amino acid) immunogenic carrier divided by about 500, and/or

(iv) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^{1'} is H, or methyl or ethyl

R^{3'} is H,

R^{4'} is ethyl,

R^{9'} is $-(CH_2)_n C(O)R^{6'}$,

~~R^{6'} is Z', which~~ is a protein immunogenic carrier in or a non-poly(amino acid) immunogenic carrier,

n is an integer from 1 to 5,

n' is an integer between 1 and the molecular weight of said protein immunogenic carrier or said non-poly(amino acid) immunogenic carrier divided by about 500.

Claim 32 (canceled).